

REMARKS

The following remarks are responsive to the Office Action mailed 8 January 2007. Applicants respectfully request reconsideration of this application as amended.

Office Action Summary

Claims 37-51 have been rejected under 35 USC §101 as being directed to non-statutory subject matter.

Claims 1-3, 6-15, 18-20, 26-30, 32-45, 48-49, 51-55, and 57-58 have been rejected under 35 U.S.C. §103(a) as being unpatentable over U.S. Patent No. 6,366,582 of Nishikado et al. ("Nishikado").

Claims 16, 31, 46, 50 and 56 have been rejected under 35 U.S.C. §103(a) as being unpatentable over Nishikado in view of U.S. Patent No. 6,275,493 of Morris et al. ("Morris").

Claims 4-5 and 17, 21-25, and 47 have been objected to as being dependent upon a rejected base claim, but otherwise allowable.

Status of Claims

Claims 1-58 are pending in the application. Claims 1, 2, 6, 9, 27, 34, 37, 40, 44, and 52 have been amended. No claims have been added or canceled. No new matter has been added.

Claim Rejections Under 35 USC §101

Claims 37-51 have been rejected under 35 USC §101 as being directed to non-statutory subject matter. Each of original claims 37-51 include the recitation, either directly or indirectly via dependence:

“A machine-readable medium that provides instructions, which when executed by at least one processor, cause said processor to perform operations comprising . . . ”

The Office Action states:

The claimed subject matter “machine-readable medium” is directed to non-functional descriptive material per se. When non-functional descriptive material is recorded on some computer-readable medium in a computer or on an electromagnetic carrier signal (see page 8 of the applicants’ specification), it is not statutory since no requisite functionality is present to satisfy the practical application requirement.

(1/8/07 Office Action, page 3) (emphasis in original).

The Office Action then makes a general reference to a USPTO website where interim guidelines for subject matter eligibility can be found. Id.

Applicants respectfully submit that the rejection is improper on several grounds.

First, the referenced guidelines are a 59 page PDF document that cannot be searched for relevant text and the Office Action provides no specific citations to the document. Applicants would like to kindly remind the Examiner that reasons for rejection must be stated with specificity, including accurate citations to referenced documents. The Examiner has not met his burden in this regard.

Second, applicants submit that the Office Action misstates the prevailing case law and the USPTO’s own interpretation of statutes and case law when it states that a “machine-readable medium is directed toward a non-functional descriptive material per se.” Id.

In contrast to the statements made in the Office Action, the MPEP states, in pertinent part, that:

Descriptive material can be characterized as either "functional descriptive material" or "nonfunctional descriptive material." In this context, **"functional descriptive material" consists of data structures and computer programs which impart functionality when employed as a computer component.** "Nonfunctional descriptive material" includes but is not limited to music, literary works, and a compilation or mere arrangement of data. 33 F.3d at 1360, 31 USPQ2d at 1759.

When functional descriptive material is recorded on some computer-readable medium, it becomes structurally and functionally interrelated to the medium and will be statutory in most cases since use of technology permits the function of the descriptive material to be realized.

(MPEP 2106.01) (emphasis added).

The claimed subject matter is clearly not non-functional subject matter because it is not music, literary works, or a compilation or mere arrangement of data. Applicants respectfully submit that, under the USPTO's own interpretation, the claimed machine-readable medium of claims 37-51 is statutory at least because the instructions are part of a computer program that imparts functionality, such as (for example) "receiving an internodal message" (claim 37), "transmitting an internodal first message" (claim 40), and "preparing at least one first message" (claim 44).

Third, the USPTO has allowed and issued thousands of patents with claims that are indistinguishable from claims 37-51 of the present application with respect to subject matter. For example, a search of the USPTO website for issued patents claiming "a machine-readable medium that provides instructions" yielded 2127 issued patents since 1976.

For example, claim 17 of U.S. Patent 7,042,881 of Dhar et al. recites:

A machine-readable medium that provides instructions which, when executed by at least one processor on an ATM destination transmission device, **cause said processor to perform operations comprising receiving** a first ATM setup message from a ATM source transmission device, the first ATM setup message having a destination address, the destination address having a first selector content; establishing a connection between the ATM destination transmission device and the ATM source transmission device; **reading** the first selector content and comparing the first selector content to a selector identification; **receiving** a first data message on the connection, the first data message having a first data; and if the selector content corresponds to the selector identification, **composing** a second data message having a second data based on the first data and causing the ATM destination transmission device to send the second data message on the connection (emphasis added).

Applicants respectfully submit that the preamble defining the subject matter of this allowed claim is indistinguishable from the preambles of rejected claims 37-51 of the present application (irrespective of the differences in specific limitations).

Fourth, it appears that the rejection of claims 37-51 relies on an interpretation of “an electromagnetic carrier signal” as a non-statutory embodiment of a “machine-readable medium.” Applicants respectfully disagree with that interpretation. As an initial matter, the Office Action fails to provide any grounds to support its assumption that carrier waves are a non-statutory embodiment of a computer readable medium. It is well known that a carrier wave is a physical, signal carrying medium that can be modulated with computer readable code that can be executed by a computer. The United States Court of Appeals for the Federal Circuit has stated that “[t]he view that there is nothing physical about signals is incorrect.” Arrhythmia Research Technology, Inc. v.

Corazonix Corp., 958 F.2d 1053, 1059 (Fed. Cir. 1992) (citing In re Tanner, 681 F.2d 787, 790 (CCPA 1982)). Absent evidence of a higher precedential authority, applicants respectfully submit that under prevailing case law, carrier waves must be accepted as a statutory embodiment of a computer readable medium.

In the alternative, applicants submit that, even if carrier waves were a non-statutory embodiment of a computer readable medium, it would be improper to import such a limitation into the claims as the Office Action attempts to do.

USPTO personnel are to give claims their broadest reasonable interpretation in light of the supporting disclosure. *In re Morris*, 127 F.3d 1048, 1054-55, 44 USPQ2d 1023, 1027-28 (Fed. Cir. 1997). **Limitations appearing in the specification but not recited in the claim should not be read into the claim.** *E-Pass Techs., Inc. v. 3Com Corp.*, 343 F.3d 1364, 1369, 67 USPQ2d 1947, 1950 (Fed. Cir. 2003) (claims must be interpreted "in view of the specification" **without importing limitations from the specification into the claims unnecessarily**). *In re Prater*, 415 F.2d 1393, 1404-05, 162 USPQ 541, 550-551 (CCPA 1969).

MPEP 2106(II)(C) (emphasis added).

Applicants submit that under the USPTO's own guidelines, to the extent that any non-statutory subject matter appears in the specification, that subject matter is simply excluded from an interpretation of the claims. In the present application, applicants submit that in claiming "a computer readable medium," applicants have claimed all statutory embodiments of a computer readable medium and have not claimed non-statutory embodiments.

Claim Rejections Under 35 USC §103(a)

Claims 1-3, 6-15, 18-20, 26-30, 32-45, 48-49, 51-55, and 57-58 have been rejected under 35 U.S.C. §102(e) as being anticipated by Nishikado. Applicant has amended the subject claims to include limitations not disclosed in Nishikado. Applicants submit that the amendments are supported by the specification and that no new matter has been added

Claims 1-3

As amended, claim 1 recites:

A method comprising:
clearing a plurality of first connections in bulk between a first node and a second node of an ATM network from the first node;
and
for each said clearing, sending a first message from the first node to the second node, the first message comprising a single bulk release message from the first node to the second node containing an identification of the first connections, the identification comprising **a list of connection identifiers allowing both of consecutive connection identifiers and non-consecutive connection identifiers.**

(emphasis added).

Nishikado discloses a communication network including connection switching exchanges in which logical connections and connection identifiers are set up and released (Nishikado, Abstract). In particular, Nishikado discloses:

[A] connection switching exchange wherein, through the use of a value masked by a switching mask register as a unit, a group of logical **connection identifiers having consecutive connection identifiers** in the unit can be subjected to connection switching by using only one entry of a switching table.

(Nishikado, col. 19, lines 13-18)

That is, the apparatus and method of Nishikado is constrained by its design to switch (i.e., set up and release) consecutive connection identifiers and **only** consecutive connection identifiers. Nishikado does not disclose “a list of connection identifiers allowing both of consecutive connection identifiers and **non-consecutive** connection identifiers,” as recited in claim 1.

Given that claims 2 and 3 depend from claim 1 either directly or indirectly, and include all of the limitations of claim 1, applicant submits that claims 2 and 3 are also not anticipated by Nishikado.

Claims 6-8

As amended, claim 6 recites:

A method comprising:

receiving a first message comprising a single bulk release message by a first node of an ATM network from a second node of the ATM network connected to the first node by at least one first connections, wherein the single bulk release message comprises **a list of connection identifiers allowing both of consecutive connection identifiers and non-consecutive connection identifiers**;

clearing the first connections from the second node in bulk in response to receiving the first message; and

sending a second message from the first node to the second node, the second message identifying at least one of the first connections cleared from the second node and the first message.

(emphasis added).

As noted above, Nishikado discloses only the release of consecutive connection identifiers. Nishikado does not disclose that a “bulk release message

comprises a list of connection identifiers allowing both of consecutive connection identifiers and non-consecutive connection identifiers,” as recited in claim 6. Accordingly, applicant submits that claim 6, as amended, is not anticipated by Nishikado.

Given that claims 7 and 8 depend from claim 6 either directly or indirectly, and include all of the limitations of claim 6, applicant submits that claims 7 and 8 are also not anticipated by Nishikado.

Claims 9-15, 18-20 and 26

As amended, claim 9 recites:

A method of clearing a plural number of connections between a first node and a second node in an Asynchronous Transfer Mode network including:

 sending at least one first message comprising a **single bulk release message** from the first node to the second node, wherein each first message **comprises a list of connection identifiers allowing both of consecutive connection identifiers and non-consecutive connection identifiers**, each first message including an identification of at least one of
 each of a plural number of first connections to be cleared in bulk from the second node by the first message, and
 each of a plural number of first connections that is one of cleared from the first node and to be cleared from the first node.

(emphasis added).

As noted above, Nishikado discloses only the release of consecutive connection identifiers. Nishikado does not disclose that “a single bulk release message . . . comprises a list of connection identifiers allowing both of consecutive connection identifiers and non-consecutive connection identifiers,”

as recited in claim 9. Accordingly, applicant submits that claim 9, as amended, is not anticipated by Nishikado.

Given that claims 10-15, 18-20 and 26 depend from claim 9, either directly or indirectly, and include all of the limitations of claim 9, applicant submits that claims 10-15, 18-20 and 26 are also not anticipated by Nishikado.

Claims 27-30, 32 and 33

As amended, claim 27 recites:

An Asynchronous Transfer Mode (ATM) node that includes
a first circuit that generates an inter-nodal call control first message comprising a single bulk release message containing an identification of at least one of each of a plural number of first connections to be cleared in bulk at an ATM first node to be coupled to the ATM node, and each of a plural number of first connections that is one of cleared from the ATM node and to be cleared from the ATM node, wherein the **single bulk release message comprises a list of connection identifiers allowing both of consecutive connection identifiers and non-consecutive connection identifiers**; and
a second circuit to transmit the first message to the first node.

(emphasis added).

As noted above, Nishikado discloses only the release of consecutive connection identifiers. Nishikado does not disclose that a "single bulk release message comprises a list of connection identifiers allowing both of consecutive connection identifiers and non-consecutive connection identifiers," as recited in claim 27. Accordingly, applicant submits that claim 27, as amended, is not anticipated by Nishikado.

Given that claims 28-30, 32 and 33 depend from claim 27 either directly or indirectly, and include all of the limitations of claim 27, applicant submits that claims 28-30, 32 and 33 are also not anticipated by Nishikado.

Claims 34-36

As amended, claim 34 recites:

An Asynchronous Transfer Mode (ATM) node that includes
a first circuit to receive and interpret a first message
comprising **a single bulk release message** from a first ATM
node that contains an identification of a plural number of first
connections, wherein the first message **comprises a list of
connection identifiers allowing both of consecutive
connection identifiers and non-consecutive connection
identifiers**; and
a second circuit to clear the first connections in bulk from
the ATM node.

(emphasis added).

As noted above, Nishikado discloses only the release of consecutive connection identifiers. Nishikado does not disclose that a “a single bulk release message . . . comprises a list of connection identifiers allowing both of consecutive connection identifiers and non-consecutive connection identifiers,” as recited in claim 34. Accordingly, applicant submits that claim 34, as amended, is not anticipated by Nishikado.

Given that claims 35 and 36 depend from claim 34 either directly or indirectly, and include all of the limitations of claim 34, applicant submits that claims 35 and 36 are also not anticipated by Nishikado.

Claims 37-39

As amended, claim 37 recites:

A machine-readable medium that provides instructions, which when executed by at least one processor, cause said processor to perform operations comprising receiving an inter-nodal message transmitted from a first Asynchronous Transfer Mode (ATM) node to a second ATM node, the inter-nodal message comprising a single bulk release message from the second ATM node that includes a list of identified connections to clear from the first ATM node, wherein **the list of identified connections allows both of consecutive connections and non-consecutive connections to be identified.**

(emphasis added).

As noted above, Nishikado discloses only the release of consecutive connection identifiers. Nishikado does not disclose that a “list of identified connections allows both of consecutive connections and non-consecutive connections to be identified,” as recited in claim 37. Accordingly, applicant submits that claim 37, as amended, is not anticipated by Nishikado.

Given that claims 38 and 39 depend from claim 37, either directly or indirectly, and include all of the limitations of claim 37, applicant submits that claims 38 and 39 are also not anticipated by Nishikado.

Claims 40-43

As amended, claim 40 recites:

A machine-readable medium that provides instructions, which when executed by at least one processor, cause said processor to perform operations comprising:
transmitting an inter-nodal first message comprising a single bulk release message by an Asynchronous Transfer Mode (ATM) first node to an ATM second node in response to a reception by the first node of an inter-nodal second message from

the second node identifying a plural number of connections to clear from the first node that includes **a list of connection identifiers of the plural number of connections, the list allowing both of consecutive connection identifiers and non-consecutive connection identifiers.**

(emphasis added).

As noted above, Nishikado discloses only the release of consecutive connection identifiers. Nishikado does not disclose a “a list of connection identifiers of the plural number of connections, the list allowing both of consecutive connection identifiers and non-consecutive connection identifiers,” as recited in claim 40. Accordingly, applicant submits that claim 40, as amended, is not anticipated by Nishikado.

Given that claims 41-43 depend from claim 40 either directly or indirectly, and include all of the limitations of claim 40, applicant submits that claims 41-43 are also not anticipated by Nishikado.

Claims 44, 45, 48, 49 and 51

As amended, claim 44 recites:

A machine-readable medium that provides instructions, which when executed by at least one processor, cause said processor to perform operations comprising:

preparing at least one first message comprising a single bulk release message to be sent from a first node of an ATM network to a second node of an ATM network, each first message including an identification of a first connections to be cleared in bulk from the second node by the first message, **the identification comprising a list of connection identifiers allowing both of consecutive connection identifiers and non-consecutive connection identifiers.**

(emphasis added).

As noted above, Nishikado discloses only the release of consecutive connection identifiers. Nishikado does not disclose an “identification comprising a list of connection identifiers allowing both of consecutive connection identifiers and non-consecutive connection identifiers,” as recited in claim 44. Accordingly, applicant submits that claim 44, as amended, is not anticipated by Nishikado.

Given that claims 45, 48, 49 and 51 depend from claim 44 either directly or indirectly, and include all of the limitations of claim 44, applicant submits that claims 45, 48, 49 and 51 are also not anticipated by Nishikado.

Claims 52-55, 57 and 58

As amended, claim 52 recites:

An Asynchronous Transfer Mode (ATM) node that includes
means for generating an inter-nodal call control first message type comprising a single bulk release message that is to identify at least one of each of a plural number of first connections to be cleared in bulk at an ATM first node coupled to the ATM node, and each of a plural number of first connections that is one of cleared from the ATM node and to be cleared from the ATM node, wherein **the single bulk release message comprises a list of connection identifiers allowing both of consecutive connection identifiers and non-consecutive connection identifiers**; and
means for transmitting the first message to the first node.

(emphasis added).

As noted above, Nishikado discloses only the release of consecutive connection identifiers. Nishikado does not disclose that a “single bulk release message comprises a list of connection identifiers allowing both of consecutive

connection identifiers and non-consecutive connection identifiers,” as recited in claim 52. Accordingly, applicant submits that claim 52, as amended, is not anticipated by Nishikado.

Given that claims 53-55, 57 and 58 depend from claim 52 either directly or indirectly, and include all of the limitations of claim 52, applicant submits that claims 53-55, 57 and 58 are also not anticipated by Nishikado.

Claim Rejections Under 35 USC §103(a)

Claims 16, 31, 46, 50 and 56 have been rejected under 35 U.S.C. §103(a) as being unpatentable over Nishikado in view of Morris. Applicant submits that each of claims 16, 31, 46, 50 and 56 are patentable over the cited references because Nishikado and Morris, either alone or in combination, do not teach or suggest each and every limitation in the subject claims.

Claim 16

Claim 16 depends indirectly from independent claim 9 and includes all of the limitations of claim 9. As noted above, Nishikado does not teach or suggest that “a single bulk release message . . . comprises a list of connection identifiers allowing both of consecutive connection identifiers and non-consecutive connection identifiers,” as recited in claim 9.

Morris is directed to network control at ingress and egress points (gateways) of an ATM network. Morris discloses a switched virtual circuit (SVC) control agent which is responsible for call setup and release at ingress/egress points external to the ATM network, in response to requests from external

communication applications at other ingress/egress points external to the network. (Morris, col. 3, lines 19-21; col. 6, lines 5-9; Figs. 2, 3). Morris does not teach or suggest the transmission of bulk release messages from node to node within the network or any inner workings of the network at all.

Therefore, Morris does not teach or suggest the limitation “a single bulk release message . . . comprises a list of connection identifiers allowing both of consecutive connection identifiers and non-consecutive connection identifiers,” as recited in claim 9.” Applicant submits, therefore, that Nishikado and Morris, either alone or in combination, do not teach or suggest the subject limitation and that claim 16 is, therefore, patentable over the cited references.

Claim 31

Claim 31 depends indirectly from claim 27 and includes all of the limitations of claim 27. As noted above, Nishikado does not teach or suggest the limitation “a single bulk release message comprises a list of connection identifiers allowing both of consecutive connection identifiers and non-consecutive connection identifiers,” as recited in amended claim 27.

As noted above, Morris does not teach or suggest the transmission of bulk release messages from node to node within the network or any inner workings of the network at all. Therefore, Morris does not teach or suggest the limitation “a single bulk release message comprises a list of connection identifiers allowing both of consecutive connection identifiers and non-consecutive connection identifiers,” as recited in amended claim 27.

Applicant submits, therefore, that Nishikado and Morris, either alone or in combination, do not teach or suggest the subject limitation and that claim 31 is, therefore, patentable over the cited references.

Claims 46 and 50

Claims 46 and 50 depend indirectly from claim 44 and include all of the limitations of claim 44. As noted above, Nishikado does not teach or suggest an “identification comprising a list of connection identifiers allowing both of consecutive connection identifiers and non-consecutive connection identifiers,” as recited in claim 44.

As noted above, Morris does not teach or suggest the transmission of bulk release messages from node to node within the network or any inner workings of the network at all. Therefore, Morris does not teach or suggest an “identification comprising a list of connection identifiers allowing both of consecutive connection identifiers and non-consecutive connection identifiers,” as recited in claim 44.

Applicant submits, therefore, that Nishikado and Morris, either alone or in combination, do not teach or suggest the subject limitation and that claims 46 and 50 are, therefore, patentable over the cited references.

Claim 56

Claim 56 depends indirectly from claim 52 and includes all of the limitations of claim 52. As noted above, Nishikado does not teach or suggest that a “single bulk release message comprises a list of connection identifiers

allowing both of consecutive connection identifiers and non-consecutive connection identifiers,” as recited in claim 52.

As noted above, Morris does not teach or suggest the transmission of bulk release messages from node to node within the network or any inner workings of the network at all. Therefore, Morris does not teach or suggest that a “single bulk release message comprises a list of connection identifiers allowing both of consecutive connection identifiers and non-consecutive connection identifiers,” as recited in claim 52.

Applicant submits, therefore, that Nishikado and Morris, either alone or in combination, does not teach or suggest the subject limitation and that claim 56 is, therefore, patentable over the cited references.

Claim Objections

Claims 4-5, 17, 21-25, and 47 have been objected to as being dependent upon rejected base claims. Claims 4 and 5 depend from claim 1, claims 17 and 21-25 depend from claim 9 and claim 47 depends from claim 44. Applicants submit that the objections to claims 4-5, 17, 21-25, and 47 are moot in view of the amendments herein which have overcome the rejections of claims 1, 9 and 44.

Conclusion

In conclusion, applicants respectfully submit that in view of the arguments and amendments set forth herein, the applicable objections and rejections have

been overcome. Applicants reserve all rights with respect to the doctrine of equivalents.

If the Examiner believes a telephone interview would expedite the prosecution of this application, the Examiner is invited to contact Richard W. Thill at (408) 720-8300.

If there are any additional charges, please charge our Deposit Account No. 02-2666.

Respectfully submitted,

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